

1 CLAIM LISTING

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3 1. (Previously Presented) A method of designing a logic circuit to provide a predetermined  
4 logical operation, the method including the steps of:

5 (a) defining a logic synthesis block comprising a single dynamic logic circuit;

6 (b) performing logic synthesis for the predetermined logical operation to produce an  
7 intermediate circuit, the logic synthesis being performed utilizing a synthesis  
8 library constrained to the logic synthesis block;

9 (c) eliminating unused devices in the intermediate circuit to produce a final circuit;  
10 and

11 (d) sizing the devices in the final circuit.  
12

13 2. (Currently Amended) The method of Claim 1 wherein the step of defining the logic  
14 synthesis block includes selecting the largest practical dynamic AND/OR circuit for the  
15 integrated circuit fabrication technology in which the logic circuit is to be implemented.  
16

17 3. (Original) The method of Claim 2 wherein the logic synthesis block comprises a four  
18 high and four wide dynamic AND/OR circuit.  
19

20 4. (Original) The method of Claim 1 wherein the step of performing logic synthesis  
21 includes leaving the size of the devices in the logic synthesis block substantially  
22 unconstrained.  
23

1 5. (Original) The method of Claim 1 wherein the step of eliminating unused devices from  
2 the intermediate circuit includes detecting devices having a state that remains constant as  
3 the intermediate circuit operates to provide the predetermined logical operation.  
4

5 6. (Original) The method of Claim 1 wherein the step of sizing the devices in the final  
6 circuit includes analyzing the final circuit to determine the characteristics of each device  
7 in the final circuit necessary in order to consistently provide the predetermined logical  
8 operation and meet drive requirements.  
9

10 7. (Original) The method of Claim 1 wherein the logic synthesis block uses a single  
11 activation/reset clock signal.  
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13 8-12 Canceled  
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15 13. (Currently Amended) In a circuit design method utilizing a logic synthesis tool and  
16 predefined logic circuit library to provide a logic implementation for a predetermined  
17 logical operation, the improvement comprising:

18 (a) defining a logic synthesis block comprising a single dynamic logic circuit; [[and]]

19 (b) in performing logic synthesis for the predetermined logical operation to produce  
20 an intermediate circuit, constraining the logic synthesis tool to the logic synthesis  
21 block;

22 (c) eliminating unused devices in the intermediate circuit to produce a final circuit;

23 and

1           (d)    sizing the devices in the final circuit.

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3       14.    Canceled

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5       15.    (Original) The method of Claim 13 wherein the step of defining the logic synthesis block  
6           includes selecting the largest practical dynamic AND/OR circuit for the circuit  
7           fabrication technology in which the circuit design is to be implemented.

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9       16.    (Original) The method of Claim 13 wherein the logic synthesis block comprises a four  
10          high and four wide dynamic AND/OR circuit.

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12       17.    (Original) The method of Claim 13 further including the step of leaving the device size  
13          in the logic synthesis block substantially unconstrained for the logic synthesis tool.

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15       18.    (Original) The method of Claim 13 wherein the logic synthesis block uses a single  
16          activation/reset clock input.